United States Department of Agriculture

Animal and Plant Health Inspection Service

Veterinary Services

Vaccination Practices

National Dairy Heifer Evaluation Project

Health management is an ongoing issue in U.S. dairy herds. Management practices that are routine by necessity include a variety of vaccinations for diseases that are found globally and regionally.

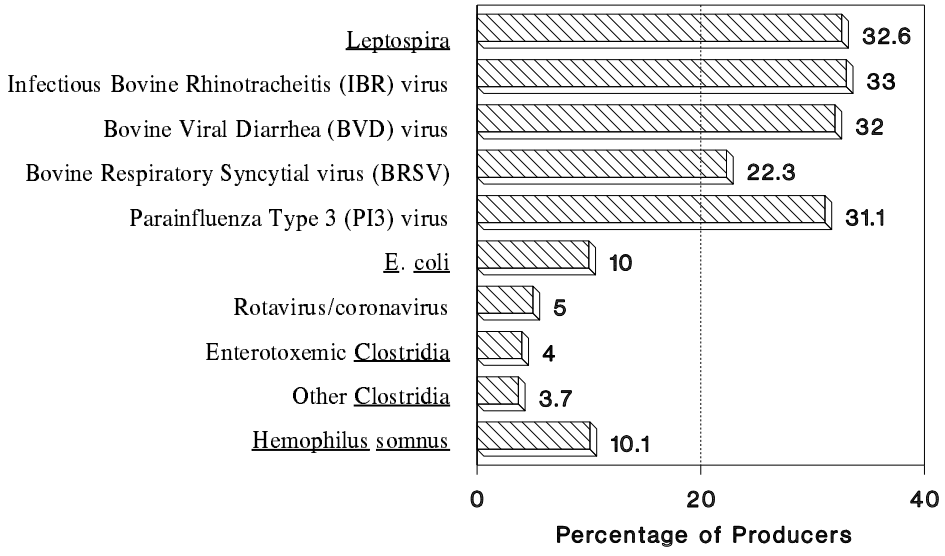
Routine vaccination practices used by U.S. dairy producers for dry cows are shown in Figure 1. Dry cow vaccinations may affect calves by helping to maintain the dam's health and also increase the diversity and concentration of antibodies delivered through the first colostrum fed to the newborn.[1] Vaccinations against Leptospira, infectious bovine rhinotracheitis (IBR) virus, bovine viral diarrhea (BVD) virus, and parainfluenza type 3 (PI3) virus are those most commonly practiced by producers.

This information was collected during a 1991-92 study by the National Animal Health Monitoring System (USDA:APHIS:VS), the National Dairy Heifer Evaluation Project (NDHEP). The NDHEP included 1,811 herds in 28 states.[2] These operations were randomly chosen so that the results would be representative of herds of 30 cows or more in the 28 states. The herds represent 78 percent of the National dairy cow population. Nearly 1,200 producers contributed information on vaccination practices.

The most common vaccinations shown in Figure 1 are each used by nearly one-third of the producers. Many of the infectious agents being vaccinated against occur naturally in dairy herds. Other agents may be recognized as high profile problems in specific herds; therefore, vaccinations may be used in control efforts.

Approximately 82 percent of the producers use veterinarians for vaccination consultation and 86

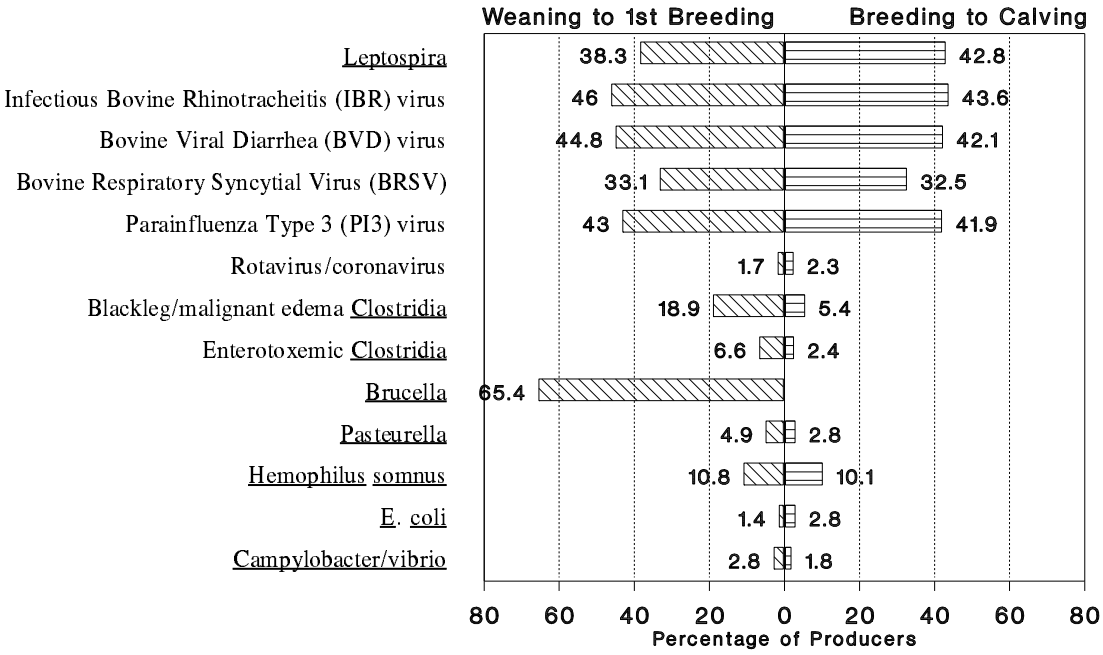
Figure 1. Percentage of Producers That Use Routine Vaccinations for Dry Cows



[1]See the NDHEP results sheet on Colostrum Management on U.S. Dairy Farms for further information.

[2]States participating in the National Dairy Heifer Evaluation Project (NDHEP): Alabama, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New York, North Carolina, Pennsylvania, Ohio, Oregon, Rhode Island, Tennessee, Vermont, Virginia, Washington, and Wisconsin.

Figure 2. Percentage of Producers That Use Various Vaccinations Routinely for Heifers

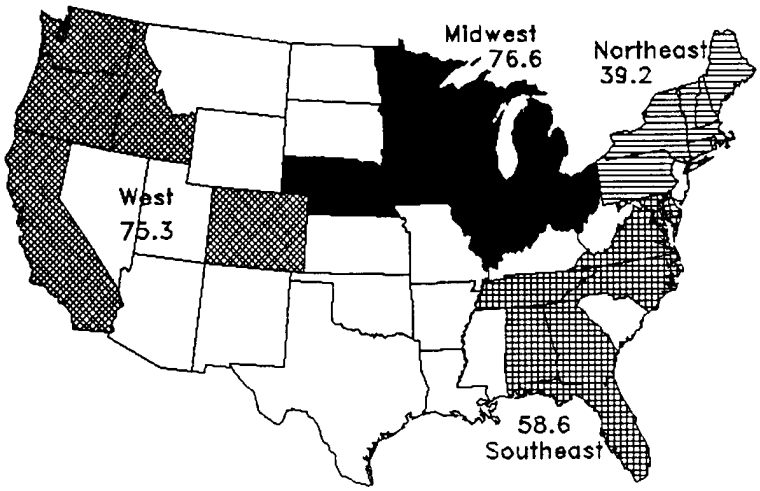


percent rely on veterinarians to provide drugs and vaccines.

Figure 2 depicts the use of vaccinations for heifers from weaning to first breeding and breeding to calving. Again, vaccinations against agents that affect reproduction and the respiratory system are most common. Others employed less often are likely used for diseases specific to regions or are recommended in specific areas. Note that heifers from weaning to first breeding are vaccinated against Brucella in 65.4 percent of the herds, although this appears to vary by region (Figure 3).

Many health-related issues have been addressed by the NDHEP. These data will be useful in determining what management-related factors appear to affect the health and well-being of dairy calves and heifers in the U.S.

Figure 3. Percentage of Producers That Use Brucella Vaccinations by Region



Participants in the NDHEP also included the National Agricultural Statistics Service (USDA), National Veterinary Services Laboratories (USDA:APHIS:VS), and State and Federal Veterinary Medical Officers. The Cooperative Extension Service provided editorial assistance. For more information on the National Dairy Heifer Evaluation Project and other NAHMS programs, please contact:

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